

REMARKS

Claims 9-20 are pending in the application. Claims 1-8 are canceled, without prejudice. Claims 9-20 are new. Applicants reserve the right to pursue the original and other claims in this and in other applications.

Claims 1-5 have been canceled in favor of new claims 9-20. The new claims should be patentable over the prior art of record, including Thieme, Tomsic, Yamada, Meyer and Liberman.

Thieme fails to disclose, teach or suggest “a metal base member having a plurality of tubular openings in a longitudinal direction, wherein the metal base member has a Vickers hardness of at least 50 at room temperature, and wherein the plurality of magnesium boride core wire members are inserted into the plurality of tubular openings.” These are important aspects of the claimed invention. In a preferred embodiment of the invention, the plurality of openings may be formed by a gun-drill method or the like, on a surface of a metal wire. Please refer, for example, to page 7, lines 13-20, and page 13, lines 4-11, of Applicant’s specification. Thieme teaches only a single tubular opening.

Moreover, Thieme fails to disclose, teach or suggest “a metal cladding layer, ... a metal base member having a plurality of tubular openings in a longitudinal direction ... and an intermediate layer, wherein the intermediate layer is a junction auxiliary material arranged between the metal cladding layer and the metal base member,” as recited by claim 9 and similarly recited by claim 10. Providing the junction auxiliary material between the metal cladding layer and the metal base member, to connect the two metal elements, is important in terms of reducing connection electric resistance between the two metals and to improve workability properties. Thieme merely teaches that a diffusion barrier should be placed around the magnesium boride core wire. The diffusion layer is then covered by a copper layer (§ 0016).

Tomsic refers to a base member having a single opening in which the superconducting core (21) is located. Tomsic fails to disclose, teach or suggest “a metal cladding layer, ... a metal base

member having a plurality of tubular openings in a longitudinal direction ... and an intermediate layer, wherein the intermediate layer is a junction auxiliary material arranged between the metal cladding layer and the metal base member.” In contrast to the invention of claims 9 and 10, Tomsic refers to an inner barrier tube (22), stabilizer tube (23) and sacrificial drawing tube (24) for added strength. (Tomsic, ¶ 0021; FIGs. 2-3).

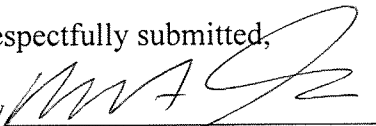
The Office Action relies upon Yamada or Meyer to teach “that the base metal has one or more holes.” Applicants respectfully submit that Yamada or Meyer fail to remedy the deficiencies of Thieme and Tomsic. Yamada fails to suggest “a metal cladding layer, ... a metal base member having a plurality of tubular openings in a longitudinal direction” and “junction auxiliary material arranged between the metal cladding layer and the metal base member.” Yamada merely teaches a wire consisting of a superconductor (1) and a sheath (5) surrounding the superconductor. The sheath (5) is comprised of an inner material (3) and an outer material (4).

Meyer merely teaches a nickel layer surrounding a silver body layer with a plurality of holes in which a semiconductor is located (column 5, line 63 – column 6, line 12; FIG. 7). Meyer also refers to a metal sheath surrounding a thin oxide layer, silver layer and semiconductor (column 9, lines 30-43; FIG. 3). Meyer does not disclose, teach or suggest that these two embodiments are compatible. Thus, Thieme and/or Tomsic in combination with Yamada or Meyer fails to disclose the claimed invention. Applicants respectfully request that claims 9-20 be allowed.

In view of the above, Applicants believe the pending application is in condition for allowance.

Dated: November 4, 2008

Respectfully submitted,

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